

Minutes, 9/29/04 Tevatron BPM Upgrade Meeting  
Stephen Wolbers

This set of minutes, and all future minutes, are or will be deposited in the Beams Document Database as document number 792.

The agenda as announced consisted of:

1. Report from Bob and Steve
2. Report from subproject leaders
3. Report from Technical Coordinator -- Jim Steimel
4. AOB

1. Report from Bob and Steve.

- Nothing to report this week.

2. Reports from L2 Managers

Bob Forster:

- Bob gave a detailed discussion of many of the hardware design, procurement and delivery issues. There are many details and the best thing is to include his report here. Comments that came up at the meeting are added by me as annotations:

Bob Forster's report:

=====

BPM Crates Req#169975, PO#557173 to DAWN

- After my lack of success, a single note from Joe Morgan got panicked action from Dawn on the parts to update the first 2 crates. Simply amazing.
- Remaining internal issues:
  - i) monitor firmware updates
    - (free) html eco ready?
    - is it sufficient?
    - if not, a UDP firmware upgrade contract is required (\_not\_ free, \$10k-ish scale?)
    - update by Equipment Support when appropriate
  - ii) filling out node name request sheets  
(in whose name? in what pattern?)
  - iii) when Equipment Support next touches each crate, Luciano requests they change the default factory password to something new, yet to be determined.

---

#### BPM Crate Panels

(the feedthru panels

one immediately above & one immediately below each crate)

- Thinh Pham finished the 2 drawings this morning.
- the stockroom only has a couple of these panels in stock.  
we need 27 + bent/breakage = 30 top panels,  
plus 30 bottom panels. So I have to go outside for these.
- I expect to be able to procard this job.
- We will label these panels internally.

(Question of material/thickness and color -- Answer is 1/8" aluminum and color needs to be consistent with the standard for the service buildings)

---

#### System Cables Req#173545 PO#559171 to Cacso

- Delivery in progress
  - all label issues resolved, this is going smoothly.
  - The lemo connectors are slowing delivery, predicted for mid November.
- 

#### BPM Air Dam modules Req#173799, PO#559479 to Elma

- imminent delivery expected
- 

#### Echotek modules

- delivery in progress
  - testing by Equipment Support in progress  
(see Tim's report for more info)
- 

#### Timing Generator Fanout (TFG) modules (Bill, Greg)

- Fab req in signature chain
  - written as sole source, but not likely to fly
  - bid will add multiple weeks to delivery
- Production Readiness Review (PRR) complete
- Greg is just back from several day vacation
- Greg is finishing #5 pilot TFG's,  
then needs to test 2 TFG's.
- Bill back from 1.5 week vacation tomorrow.  
Bill will be doing final testing for production next week.

---

Filter module (Ken)

- Fab req in signature chain
  - written as sole source, but not likely to fly
  - bid will add multiple weeks to delivery
- Ken says one of the long lead time parts we already ordered is on 12 week delivery, not expected until \ about Nov 20th. So bidding this fab job likely makes sense anyway.
- Filter module tested, with 1 gotcha fixed for the production version.
- Production Readiness Review (PRR) document in progress for submission for approvals.
- Filter delivery in progress Req#171963 PO#558520 to Lark
  - 300 (+27) Filter pairs delivered so far
  - Equipment Support is testing samples
  - data is being compared against Lark test data which is available on-line.

(Some discussion here of what will be needed for the commissioning. No decision made but we may want to load some or all of the prototype filter boards with filters. This needs further discussion and understanding of how easy it is to remove the filters later if that turns out to be needed, etc.)

---

Space in ESE Lab

- Neal is rackmounting the test stand equipment, which will free up considerable space for pc's, laptops, and other user type "important stuff".
- When he's ready, he's been asked to coordinate the actual move with Jim Steimel and Luciano.
- Anybody with any opinions on this subject should get them expressed pronto (hint hint hint ....)
- 

I'm sure I forgot to mention something ...  
my apologies to whoever ...

Bob.

=====

=====

Luciano Piccoli:

- Readout at 500 Hz has been achieved with two boards in a crate.
- Some differences in readout rate have been seen in two different crates. Working to understand it.
- Planning to push to readout with a full crate, once boards are available.
- Will work with Bill Haynes to understand issues with missing interrupts.

Brian Hendricks:

- Working on modifications to libraries for the new system.
- Thinking about how raw data will be used in applications.
- Thinking about the calibration application. Marc Mengel will do the coding but the details of what the program does has to be established.

Tim Kasza:

- Will start the random testing of filters soon. The current plan is to test 10% of the filters and to test every 10th serial number-ed filter.
- Echotek board testing has begun. A document with the status can be found in AD docDB #1381.

Additional information:

- The 3 June boards should be returned to Echotek. 1 of them has already been returned so the remaining two should follow it.
- The low gain values seen on some of the channels are not a priori evidence that the boards are unacceptable. Once a sample of test results is available we will look at the distribution of gains and make appropriate lower and upper limits for acceptable values.
- As of 9/29/04 at noon 14 out of 18 boards were tested. The rate of testing is about 8 per day.
- A contact with Echotek needs to be established for questions

and issues resolution. We assume that this person will be Mark Bowden.

### 3. Technical Coordinator -- Jim Steimel

- Given the schedule for the production filter and timing boards Jim is thinking about possible installation and commissioning plans. One proposal (coming from a discussion Jim and Steve had on Tuesday) is to install 4 complete systems in 4 service buildings during the shutdown. Commissioning would commence with the A3 system. The other three are yet to be decided.

- To accomplish this we will need to build some simple filter and attenuator circuits for the 4 systems. One would hope that this could be done in such a way that the filters could later be removed and installed in the production filter boards later. Further discussion is needed to work out details and iterate on these ideas.

- Jim is making progress on the teststand and learning about the Echotek. Working now on getting closed orbit information into ACNET. Will talk to and work with Brian, Luciano, Mike and others to make further progress.

### 4. AOB.

- No meeting Thursday September 30.

- Will announce Monday morning whether there will be a meeting Monday October 4 at 11:00. Depends on status of Echotek/Graychip investigations.